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Patent Application Serial No. 08/897,953
Response to Office Action of January 28, 2008

AMENDMENTS TO THE CLAIMS:

The following listing of claims will replace all prior versions, and listings, of claims:

Claims 1 - 4 (canceled)

Claim 5 (previously presented): The fabrication method of the semiconductor device as claimed in claim 15, wherein said plurality of the projection electrodes are formed as studs by wire-bonding, the studs being leveled.

Claims 6-7 (canceled)

Claim 8 (currently amended): The fabrication method of the semiconductor device as claimed in claim [[6]] 15, wherein in the step [[[a-1)]]] (a), said conductive adhesive on the projection electrodes is formed by a conductive adhesive, that has been skidded on a plate, and then transcribed onto the projection electrodes.

Claim 9 (withdrawn): A fabrication system of a semiconductor device comprising:
a chip loading device forming a given number of projection electrodes on each of a given number of semiconductor chips;
a substrate loading device loading a substrate having mounting parts on which said semiconductor chips are to be mounted;
an adhesive-application device applying a thermosetting insulating adhesive to areas of said mounting parts of the substrate;
an alignment-and-pressing device heating said thermosetting insulating adhesive on said

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substrate with a half-thermosetting temperature, aligning said semiconductor chips to said mounting parts of the substrate, and performing a first fixing of the semiconductor chips with a first pressure; and

a pressing-and-heating device heating said substrate, on which said semiconductor chips are fixed, with a thermosetting temperature of said thermosetting insulating adhesive, and performing a second fixing of the semiconductor chips with a second pressure.

Claim 10 (withdrawn): The fabrication system of a semiconductor device as claimed in claim 9, wherein:

said alignment-and-pressing device comprises a heat plate for heating said thermosetting insulating adhesive with the half-thermosetting temperature, and bonding heads for aligning said semiconductor chips to said mounting parts and for performing said first fixing with the first pressure; and

said pressing-and-heating device comprises a stage for heating said substrate with the thermosetting temperature, and pressing-and-heating heads for performing said second fixing with the second pressure with heating the semiconductor chips.

Claims 11 - 14 (canceled)

Claim 15 (previously presented): A fabrication method of a semiconductor device comprising the steps of:

- (a) forming a plurality of projection electrodes on each of a plurality of semiconductor chips and transcribing a conductive adhesive on the projection electrodes;
- (b) applying a thermosetting insulating adhesive to areas of mounting parts where the

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semiconductor chips are to be mounted on a substrate;

(c) heating the thermosetting insulating adhesive on the substrate with a half-thermosetting temperature so as to harden the thermosetting insulating adhesive to a half-thermosetting state by heating means under the substrate;

(d) aligning the semiconductor chips to the mounting parts of the substrate at a first stage so as to connect the projection electrodes and mounting pads on the substrate through the conductive adhesive;

(e) performing a first fixing of the semiconductor chips by pressing the semiconductor chips with a first pressure by a bonding head to which the semiconductor chips are absorbed when the thermosetting insulating adhesive is cured by the heating means, the semiconductor chips each being pressed separately;

(f) moving the substrate to a second stage, while the semiconductor chips on the mounting parts of the substrate are held at their position by the half-thermosetting state of the thermosetting insulating adhesive; and

(g) thereafter heating, at the second stage, the substrate, on which the semiconductor chips are fixed, with a thermosetting temperature of the thermosetting insulating adhesive, and performing a second fixing of the semiconductor chips with a second pressure, wherein the second pressure for performing the second fixing of the semiconductor chips is greater than the first pressure for performing the first fixing of the semiconductor chips so that a dispersion of a degree of collapse of the plurality of projection electrodes may be absorbed, the plurality of semiconductor chips being pressed simultaneously in the second fixing.

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Claim 16 (currently amended): A fabricating method according to claim 15, wherein in the heating step (c), heating the thermosetting insulating adhesive is performed by a heat plate on which the substrate is placed in contact therewith.

Claim 17 (previously presented): A fabrication method according to claim 15, wherein in the heating step (e), heating the thermosetting insulating adhesive is performed by a heat block having a plurality of pressing/heating heads each of which is provided on the heat block corresponding to the mounting parts of the substrate.

Claim 18 (canceled)

Claim 19 (new): A fabrication method of a semiconductor device having a substrate and a semiconductor chip on the substrate, comprising the steps of:

transcribing a conductive adhesive on projection electrodes of the semiconductor chip;
applying a thermosetting insulating adhesive on the substrate so to fix the semiconductor chip;

heating the thermosetting insulating adhesive by a first heating means in a stage under the substrate;

aligning the semiconductor chips to the substrate so as to connect the projection electrodes and mounting pads on the substrate through the conductive adhesive;

pressing the semiconductor chip to the substrate when the thermosetting insulating adhesive is cured by the first heating means; and

pressing the semiconductor chip to the substrate and heating the semiconductor chip by a second heating means above the semiconductor chip.